ATTACHMENT 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

NOV 30 1989

Ref: 8HWM-RI

David P. Simonson, Manager
U.S. Department of Energy
Rocky Flats Office
P.O. Box 928
Golden, Colorado 80402-0928

Dear Mr. Simonson:

Enclosed are general and specific comments regarding the "SWMU Construction Guidelines" presented by your staff and contractor at a meeting held September 22, 1989. We hope that these comments will assist you in determining how to proceed with DOE's construction and renovation projects, while complying with DOE's responsibilities regarding the Hazardous and Solid Waste Amendments (HSWA), specifically the Land Disposal Restrictions, and the State of Colorado's CHWA Corrective Action requirements.

These comments reflect several discussions that EPA Regional Staff have had with EPA Washington, D.C. staff. EPA published a Federal Register on October 10, 1989, which solicited comments on EPA's proposed interpretation of the term "land disposal" as it applies to certain activities involving the excavation, treatment and redeposition of hazardous wastes (pgs 41566 through 41569).

Until such time as EPA promulgates a final rule regarding this matter no assurance can be given that the comments provided in the enclosure represent EPA's final policy. However, EPA has provided these comments to DOE to assist in providing the Agency's present thinking regarding the matter. Assurance for maintaining compliance with the requirements of RCRA, CHWA, and HSWA remains a DOE and DOE contractor responsibility.

If you have further questions or we can be of further assistance, please contact Nat Miullo of my staff at (303) 293-1668.

Sincerely,

Robert L. Duprey, Director
Hazardous Waste Management Division

RECEIVED
U.S.D.O.E.
R.F.P.O.

Enclosure
cc: David C. Shelton, CDH
Dave Fagan, EPA HQ

A

EPA Comments on "RFP SWMU Construction Guidelines"

General Comments

EPA's preliminary review of the proposed guidelines has involved personnel from EPA Headquarters as well as Region VIII.

As stated in the meeting held September 22, 1989, the issue revolves around "placement" or "land disposal" of RCRA hazardous waste. RCRA 3004(k) defines "land disposal" for the purposes of land disposal restrictions to include "... any placement of ... hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave." It is stated in the preamble to the proposed NCP (53 FR 51444), that land disposal occurs when a RCRA hazardous waste is placed into one of these land-based units. Movement of wastes entirely within a unit would not be considered "land disposal" for purposes of the land disposal restrictions.

It should be noted that the "units" mentioned here are not the "Operable Units", which have been mutually agreed to for administrative purposes in the Federal Facility Agreement negotiations. Rather, we are talking of solid waste management units ("SWMUs") or "sites" as identified in the Rocky Flats draft Federal Facility Agreement.

Activities that would be considered "land disposal" include; (1) consolidation of wastes from several units into one land-based unit; (2) waste removal and treatment outside the land-based unit, with the wastes redeposited into the same or another unit; and (3) excavation of waste from a land-based unit, treatment of the waste in an incinerator, surface impoundment, or tank that is located within the unit or area of contamination, and subsequent redeposition into the unit.

DOE should also consider that the universe of constituents which are subject to the Land Disposal Restrictions will change to include more than what is presently subject to regulation. Such change needs to be considered and incorporated into the soil excavation activities and procedures.

If facility activities include construction in an area where there is an ongoing response action and treatment of a RCRA hazardous waste, DOE would need to handle the waste in a consistent manner with the response action. A removal or treatment of such waste prior to the selection of a remedial action may be subject to the prohibitions of Section 122(e)(6) of CERCLA.

Specific Comments

This section will cover EPA's comments on the Rocky Flats proposed SWMU construction guidelines:

1.1 Facilities can be constructed and operated on SWMU sites provided soil analyses results are acceptable to industrial hygiene.

Comment: EPA's does not generally condone facility construction and operation on SWMU sites. It is possible that ultimate remediation at the SWMU would require the facilities to be removed or otherwise affected. DOE should recognize that it is assuming some risk inherent in any construction at a SWMU. If the point of this statement is to construct on non-contaminated areas, specific methods for soil screening should be proposed to EPA and the State for approval. Acceptability by industrial hygiene has no relation to the requirements of the Land Disposal Restrictions (LDR).

2.1 The boundaries of SWMUs shall be delineated by physical markings on existing documented data.

Comment: The boundaries may not be obvious, in which case the existing documented data may not suffice. EPA supports the concept but does not agree that such boundaries are tied only to existing data. Also, EPA strongly suggests that criteria should be added to the guidelines requiring consultation with and approval from DOE's Rocky Flats Environmental Protection Division prior to construction. Such consultation and approval should include documentation and data relied upon in making decisions where construction at a SWMU is proposed.

3.0 The SWMU soil shall be analyzed before construction to establish personnel and environmental protective measures during construction and to confirm safe facility use.

Comment: EPA (CDH once the State is authorized for LDR implementation) should be involved in two aspects of this phase of the construction guideline. First, EPA should be consulted in terms of what RCRA hazardous wastes will be analyzed for and the methods of analyses, including QA/QC procedures. Second, EPA should be consulted in terms of construction location, etc., with respect to the SWMUs.

3.1.1 Clean soil (non-hazardous/non-radioactively contaminated) may be removed from the SWMU and used

or disposed in accordance with existing RFP procedures.

Comment: One cautionary note that if this "clean" soil is placed on a SWMU, it must be treated as SWMU soil. Disposal should be in accordance with the CERCLA protectiveness standards and ARARs, and not RFP procedures.

3.1.2 Soil characterized as low-level radioactive waste may be disposed of at an off-site licensed Low-Level Waste repository per current RFP procedures.

Comment: EPA is not aware of what the RFP procedures are, but disposal must be per the EPA off-site policy, codified in Section 121(d)(3) of CERCLA and the DOE off-site policy.

3.1.3 Soil characterized as hazardous waste may be disposed of at an off-site licensed hazardous waste repository per current RFP procedures.

Comment: The comment of 3.1.2 applies here also for off-site disposal. In addition, if such RCRA hazardous waste is a land disposal restricted waste, it may have to be treated at the plant, or RFP must certify what treatment is required *before* land disposal. A removal or treatment of such waste prior to the selection of a remedial action may be subject to the prohibitions of Section 122(e)(6) of CERCLA.

3.1.4 Soil characterized as mixed waste must remain on the SWMU.

Comment: Such mixed wastes must be accounted for in accordance with the requirements specified in the Land Disposal Restriction Federal Facility Compliance Agreement which is now in effect at RFP.

3.2.1 Regardless of characterization, soil may be reused on a SWMU site in grading, mounding, and backfill.

Comments: As noted in the general comments above, movement of wastes entirely <u>within</u> a SWMU would not be considered "land disposal" for purposes of the Land Disposal Restrictions. But such activity shall not be for the purposes of dilution of RCRA hazardous waste. EPA does have concerns for certain SWMUs in terms of the soil moving activities which could cause an unacceptable health risk to the public, plant employees, and/or which adversely impacts the environment. For example, airborne releases must be monitored, minimized, and controlled. EPA would like to discuss further with DOE and its contractor <u>which</u> SWMUs might be graded, mounded, or backfilled.

3.2.2 For hazardous, low-level radioactive waste, or mixed waste soils;

- temporary storage off the SWMU is permitted with proper containment measures.

Comment: Placing of material in a "pile" or "placement" would be defined as "land disposal". Also, placement of materials off the SWMU may trigger land disposal restrictions.

- temporary storage on the SWMU is permitted with proper stabilization.

Comment: Placing of material in a pile may trigger land disposal restrictions.

- temporary storage off the SWMU on an adjacent SWMU is permitted with proper containment vessels.

Comment: Storage <u>off</u> the SWMU triggers the Land Disposal Restrictions, i.e., time restrictions, BDAT and MTR.

3.3.2 Temporary storage of SWMU soil is limited to 90 days unless specifically authorized in writing by the RCRA/CERCLA program office.

Comment: Storage of wastes under the land disposal requirements is allowed <u>only</u> until you have sufficient quantities to treat, not to exceed one year. For other hazardous waste storage, you may not exceed 90 days without a storage permit and following the requirements of generator storage.

3.4.1 Clean soil from off the SWMU may be used on the SWMU, but once moved to the SWMU must be treated as SWMU soil.

Comment: EPA would note that it does not make sense to contaminate clean soils. Also, dilution of land disposal restricted wastes is prohibited.

FCD:November 8, 1989:LDR

ANALYTE LIST FOR SOLAR EVAPORATION POND INVESTIGATION[a]

Radionuclides

Plutonium 239, 240
Americium 241
Cesium 137
Uranium 233, 234, 235, and 238
Strontium 90
Tritium[c]
Gross alpha
Gross beta
Radon[d]

Metals

Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Cesium
Cobalt
Chromium
Copper
Iron
Lead
Lithium[h]
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Sodium
Silver
Thallium
Tin[h]
Vanadium
Zinc

Inorganics[g]

Nitrate/Nitrite
Ammonia (as N)[c]
Sulfate
Total sulfur[b]
Hydroxide
Fluoride
Chloride[e]

Volatile Organics[g]

Chloromethane
Bromomethane
Vinyl Chloride
Chloroethane
Methylene Chloride
Acetone
Carbon Disulfide
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethene (total)
Chloroform
1,2-Dichloroethane
2-Butanone
1,1,1-Trichloroethane
Carbon Tetrachloride
Vinyl Acetate
Bromodichloromethane
1,1,2,2-Tetrachloroethane
1,2-Dichloropropane
cis-1,3-Dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
trans-1,3-Dichloropropene
Bromoform
2-Hexanone
4-Methyl-2-pentanone
Tetrachloroethene
Toluene

(continued)

Volatile Organics (continued)

Chlorobenzene
Ethyl Benzene
Styrene
Xylenes (Total)
Methylethyl Ketone Peroxide[h]

Semivolatile Organics[g]

Phenol
bis(2-Chloroethyl) ether
2-Chlorophenol
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Benzyl Alcohol
1,2-Dichlorobenzene
2-Methylphenol
bis(2-Chloroisopropyl) ether
4-Methylphenol
N-Nitroso-Dipropylamine
Hexachloroethane (perchloroethane[h])
Nitrobenzene
Isophorone
2-Nitrophenol
2,4-Dimethylphenol
Benzoic Acid
bis(2-Chloroethoxy) methane
2,4-Dichlorophenol
1,2,4-Trichlorobenzene
Naphthalene
4-Chloroaniline
Hexachlorobutadiene
4-Chloro-3-methylphenol (para-chloro-meta-cresol)
2-Methylnaphthalene
Hexachlorocyclopentadiene
2,4,6-Trichlorophenol
2,4,5-Trichlorophenol
2-Chloronaphthalene
2-Nitroaniline
Dimethyl Phthalate
Acenaphthylene
2,6-Dinitrotoluene
3-Nitroaniline
Acenaphthene
2,4-Dinitrophenol
4-Nitrophenol
Dibenzofuran
2,4-Dinitrotoluene
Diethylphthalate
4-Chlorophenyl Phenyl ether
Fluorene
4-Nitroaniline
4,6-Dinitro-2-methylphenol
N-nitrosodiphenylamine
4-Bromophenyl Phenyl ether
Hexachlorobenzene
Pentachlorophenol
Phenanthrene
Anthracene
Di-n-butylphthalate
Fluoranthene
Pyrene
Butyl Benzyl Phthalate
3,3-Dichlorobenzidine
Benzo(a)anthracene
Chrysene
bis(2-ethylhexyl)phthalate
Di-n-octyl Phthalate
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Indeno(1,2,3-cd)pyrene
Dibenz(a,h)anthracene
Benzo(g,h,i)perylene
ethylene glycol[h]

(continued)

Miscellaneous

Acidity[c]
Alkalinity[c]
pH[e]
Specific conductance[e]
Dissolved Oxygen[c,f]
Oxidation reduction potential[c,f]

---

[a]Modified after the Draft Interagency Agreement, Attachment 4, "Hazardous Substance List."
[b]Soil/sediment matrix only.
[c]Water matrix only.
[d]Groundwater samples only.
[e]Both field and laboratory determinations.
[f]Field determination only.
[g]For water matrix, perform analysis on unfiltered sample only.
[h]From Draft Interagency Agreement, Attachment 4, "Hazardous Substance List."